

9 October 1969

MEMORANDUMTo: Subj: P. I. Time Requirements for
Psychophysics Experiments

The purpose of this memorandum is to provide estimates of time requirements for photointerpreters to be used in the information extraction experiments. Our preliminary study indicates that approximately one hour of observer time is required in order to obtain one curve of probability of correct decision versus signal-to-noise ratio. Such a curve deals with one type of degradation, one quantitative amount of that type of degradation and, of course, for one set of object alternatives. If we involve two different types of degradations, and five levels of degradation then we have ten hours required to obtain a complete family of curves for one observer and one set of object alternatives. I would like to start with alphanumerics in the first object set for exactly the same reasons that prompt eye charts in vision testing and bar charts in photographic testing. I estimate that probably three other sets will be required in attempting to find object sets which are realistic. This means we end up with 4×10 or 40 hours of observing time for a complete set on one P. I. This 40 hours is, of course, spread out over one-year's time.

My personal desire would be to have two P. I.'s run the complete set. If very large individual differences become apparent, the experimental plan would have to be reviewed. Such was not the case for our local observers and I would not expect it to be true for the P. I.'s.

Declass Review by
NIMA/DOD

By the time that we have progressed to the third object set I think it would be highly desirable to involve three or four more P. I. 's in a reduced run, say five hours each. This would allow additional observation of individual differences and would also indoctrinate these people in the information extraction concepts of the experiment.

In summary then:

2 P. I. 's	-	40 hours each (over 1 year)
4 P. I. 's	-	5 hours each

Total	-	100 P. I. Hours
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These estimates are made without knowledge of the implications of such demand on P. I. 's time and are, of course, subject to negotiation.



Associate Director

JLH:pw

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